Minikube

In the context of DevOps, Minikube is a lightweight, single-node Kubernetes cluster tool used for local development and testing, allowing developers to experiment with Kubernetes features without the complexities of a full-fledged cluster.

=>MINIKUBE

--> curl -LO

https://dl.k8s.io/release/v1.32.0/bin/linux/amd64/kubectl sudo

install -o root -g root -m 0755 kubectl /usr/local/bin/kubectl

--< --> chmod +x kubectl mkdir

-p ~/.local/bin mv ./kubectl

~/.local/bin/kubectl

--< kubectl version --

client

-->

curl -LO
https://github.com/kubernetes/minikube/releases/latest/download/minikubelinux-amd64

sudo install minikube-linux-amd64 /usr/local/bin/minikube && rm minikube-linuxamd64

--< minikube

start

docker ps (check is container is running) kubectl

get node

kubectl get pod (No resources found) kubectl

get pod -o wide (No resources found)

minikube status kubeclt get deploy kubectl

get replica

JENKINS pipeline

```
pipeline {
  agent any

  tools {
    maven 'Maven'
  }

  stages {
    stage('SCM') {
      steps {
        git branch: 'main', url:
'https://github.com/NavinkumarD/DevOps-
1.git'
        bat 'dir' // Check directory structure
after clone
```

```
        }
    }

    stage('Build') {
        steps {
            dir('simple-web-app') {
                bat 'mvn clean install'
            }
        }
    }

    stage('Build to Images') {
        steps {
            dir('simple-web-app') {  // Ensure we
are in the correct directory
                bat 'docker build -t
22csl258/mysimplewebapplication .'
            }
        }
    }

    stage('Push to Hub') {
        steps {
            script {
```

```
docker.withRegistry('https://index.docker.io/v1
/', 'docker-hub') {


docker.image('22csl258/mysimplewebapplicat
ion').push('latest')
            }
          }
        }
      }
    }
}
```